# UNITED STATES PATENT AND TRADEMARK OFFICE

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| 09/889,567 | 09/20/2001 | Sunao Murata | 212054US2PCT | 1713 |

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| ART UNIT | PAPER NUMBER |
|---|---|
| 2622 | |

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 09/889,567 | MURATA, SUNAO |
| | Examiner | Art Unit | |
| | Joseph R. Pokrzywa | 2622 | |

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>24 May 2005</u>.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>1-28</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-28</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>24 May 2005</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

## DETAILED ACTION

### *Response to Amendment*

1.      Applicant's amendment was received on 5/24/05, and has been entered and made of record. Currently, **claims 1-28** are pending.

### *Response to Arguments*

2.      Applicant's arguments filed 5/24/05 have been fully considered but they are not persuasive.

3.      In response to applicant's arguments regarding the rejection of **claim 1**, which was cited in the Office action dated 2/24/05 as being anticipated by Akiyama *et al.* (U.S. Patent Number 6,771,378), whereby applicant argues on pages 13-15 that Akiyama fails to teach of "a printing data generation function configured to generate printing data to be printed by the printer based on the status information data acquired by the status information acquisition function on the host side" and "generating print data to be printed on the printer based on the status information acquired from the printer." Akiyama teaches of generating an alternative color upon receiving the status information from the printer, as seen in Figs. 43A and 43B, and particularly in steps S1619 and S1620. Further, Akiyama states in column 56, lines 61-64, that "the program may automatically designate the alternative color and may display the designated color". After the alternative color is generated for the print data, the print data is transmitted to the printer in step S1613 and printed in step S1614, as seen in Fig. 43C. Thus, Akiyama can be interpreted as teaching of generating printing data to be printed by the printer (being the print data in an

alternative color, as read in column 56, line 49-column 47, line 2) based on the status

information data acquired by the status information acquisition function on the host side (being

the status information about the presence or absence of the individual ink reservoirs, as read in

column 56, lines 5-11).

4.      Therefore, the rejection of independent *claim 1*, which was cited in the Office action

dated 2/24/05 under 35U.S.C.102(e) as being anticipated by Akiyama *et al.*, is maintained and

repeated in this Office action.  Further, for the same reasons discussed above, the rejection of

independent *claims 8, 14, 21, and 28*, which was also cited in the Office action dated 2/24/05

under 35U.S.C.102(e) as being anticipated by Akiyama et al., is also maintained and repeated in

this Office action.


5.      In response to applicant's arguments regarding the rejection of independent claim 8,

which was cited in the Office action dated 2/24/05 as being anticipated by Sato *et al.* (U.S. Patent

Number 6,667,812), whereby applicant argues on pages 15 and 16 that Sato fails to teach of a

status information output unit that outputs status information data, "and causing the host

computer to generate printing data for the printer to print the status information." Sato states in

column 8, lines 42-52 that the first printer language system (or the first printer environment)

includes registered form data and user font data. This is further seen in Figs. 5, 7, 8, and 10,

whereby the environment data includes the form and user font data.  With this, Sato teaches of

transferring the form data and user font data (as the printer environment data) from the printer to

the host computer, as also read in column 8, lines 42-65.  Upon receiving the printer environment

data, the host computer selects the appropriate printer driver that conforms to the printer

environment data (being the registered form and the user font data), thereby transmitting print

data, which is generated for the printer to print the status information, as read in column 4, lines

44-60, whereby the form data and the font data (being the status data) are used for printing a

document, as read in column 3, lines 18-24. Thus, the printer effectively prints the status

information, being the form data and the user font data.

6.      Therefore, the rejection of independent *claim 8*, which was cited in the Office action

dated 2/24/05 under 35U.S.C.102(e) as being anticipated by Sato *et al.*, is maintained and

repeated in this Office action.


### *Drawings*

7.      The drawings were received on 5/24/05. These drawings are acceptable by the examiner.


### *Claim Rejections - 35 USC § 102*

8.      The text of those sections of Title 35, U.S. Code not included in this action can be found

in a prior Office action.

9.      **Claims 1-9, 11, and 14-28** are rejected under 35 U.S.C. 102(e) as being anticipated by

Akiyama *et al.* (U.S. Patent Number 6,771,378, cited in the Office action dated 2/24/05).

        Regarding *claim 1*, Akiyama discloses a medium having a status information printing

program recorded thereon to be run on a host computer in order for a printer to print status

information (see Fig. 1, column 8, line 54-column 9, line 51, and column 55, lines 57-61), the

host computer and the printer being connected for two-way communication (see Fig. 1, column

8, lines 56-64), the printing program comprising an output initiation instruction monitor function

configured to monitor the output initiation instruction for the status information that the printer

outputs through the two-way communication (see Figs. 43A-43C, step, S1602, and column 55,

line 41-column 56, line 43), a status information acquisition function on the host side configured

to acquire status information data from the printer through the two-way communication (step

S1603, column 56, lines 5-43), a printing data generation function configured to generate

printing data to be printed by the printer based on the status information data acquired by the

status information acquisition function on the host side when the output initiation instruction is

recognized by the output initiation instruction monitor function (steps S1604-S1611, column 56,

line 11-column 57, line 51), and a printing data output function configured to output to the

printer through the two-way communication the printing data generated by the printing data

generation function (steps S1613-S1614, column 57, line 49-column 58, line 8).

Regarding *claim 2*, Akiyama discloses the medium discussed above in claim 1, and

further teaches that the printing data generated by the printing data generation function is dot

image data (column 45, lines 8-42).

Regarding *claim 3*, Akiyama discloses the medium discussed above in claim 1, and

further teaches that part of the status information data is in the printer whether the output

initiation instruction exists or not (see Figs. 2A and 43A-43C, column 55, line 15-column 56,

line 43), and initiation instruction monitor function is configured to monitor whether the output

initiation instruction is contained in the status information data acquired by the status

information acquisition function on the host side (steps S101-S102, column 9, lines 55-67, and

column 55, line 15-column 56, line 43).

Regarding *claim 4*, Akiyama discloses the medium discussed above in claim 1, and further teaches that the output initiation instruction is a trigger transmitted from the printer through the two-way communication (column 55, line 15-column 56, line 43), and the output initiation instruction monitor function is configured to judge whether the trigger is received (column 56, line 8-48).

Regarding *claim 5*, Akiyama discloses the medium discussed above in claim 1, and further teaches that the status information acquisition function is configured to analyze the status of the printer based on the acquired status information data (column 56, line 8-column 57, line 48), and the status information acquisition function is configured to warn a user on the host computer if the printer can perform no printing (see Figs. 46-49).

Regarding *claim 6*, Akiyama discloses the medium discussed above in claim 1, and further teaches that the status information acquisition function is configured to acquire the communication mode as the status information data when two-way communication is held with the printer (column 55, line 15-column 57, line 48).

Regarding *claim 7*, Akiyama discloses the medium discussed above in claim 1, and further teaches that the printing data generation function is configured to generate from a default file the form of the printing images to be printed by the printer (column 9, lines 25-51), generate the character string image corresponding to the status based on the status information data (column 9, lines 25-51, column 32, lines 38-63, and column 44, line 55-column 45, line 7), and generate the printing image by superimposing them together (column 9, lines 25-51, column 32, lines 38-63, and column 44, line 55-column 45, line 7).

Regarding *claim 8*, Akiyama discloses a printer for holding two-way communication

with a host computer and printing status information about the printer (see Fig. 1, column 8, line

54-column 9, line 51, and column 55, lines 57-61), the printer comprising an output initiation

instruction unit configured to instruct the output initiation of the status information (controller

102, column 55, lines 36-56), a status information acquisition unit on the printer's side

configured to acquire status information data on the printer (column 56, lines 3-11), a status

information output unit configured to output through the two-way communication the status

information data acquired by the status information acquisition unit on the printer's side (column

56, lines 3-18), and causing the host computer to generate printing data for the printer to print the

status information (column 56, line 11-column 57, line 51), and a printing unit configured to

receive the printing data from the host computer through the two-way communication and

performing predetermined printing based on the received data (column 57, line 49-column 58,

line 8).

Regarding *claim 9*, Akiyama discloses the printer discussed above in claim 8, and further

teaches that the printing data received by the printing unit is dot image data (column 45, lines 8-

42).

Regarding *claim 11*, Akiyama discloses the printer discussed above in claim 8, and

further teaches that the output initiation instruction unit is configured to output a trigger as the

output initiation instruction through the two-way communication (column 55, line 15-column 56,

line 43), and the status information output unit is configured to output the status information data

acquired by the status information acquisition unit after the trigger is outputted (column 56, lines

8-48).

Regarding *claim 14*, Akiyama discloses a printing controller for causing a printer

connected for two-way communication to print status information on the printer (see Fig. 1,

column 8, line 54-column 9, line 51, and column 55, lines 57-61), the printing controller

comprising an output initiation instruction monitor unit configured to monitor the output

initiation instruction for the status information that the printer outputs through the two-way

communication (controller 102, column 55, lines 36-56), a status information acquisition unit on

the host side configured to acquire status information data from the printer through the two-way

communication (column 56, lines 3-18), a printing data generation unit configured to generate

printing data to be printed by the printer based on the status information data acquired by the

status information acquisition unit on the host side when the output initiation instruction monitor

unit recognizes the output initiation instruction (column 56, line 11-column 57, line 51), and a

printing data output unit configured to output to the printer through the two-way communication

the printing data generated by the printing data generation unit (column 57, line 49-column 58,

line 8).

Regarding *claim 15*, Akiyama discloses the controller discussed above in claim 14, and

further teaches that the printing data generated by the printing data generation unit is dot image

data (column 45, lines 8-42).

Regarding *claim 16*, Akiyama discloses the controller discussed above in claim 14, and

further teaches that part of the status information data is in the printer whether the output

initiation instruction exists or not (see Figs. 2A and 43A-43C, column 55, line 15-column 56,

line 43), and the output initiation instruction monitor unit is configured to monitor whether the

output initiation instruction is contained in the status information data acquired by the status

information acquisition unit on the host side (steps S101-S102, column 9, lines 55-67, and column 55, line 15-column 56, line 43).

Regarding *claim 17*, Akiyama discloses the controller discussed above in claim 14, and further teaches that the output initiation instruction is a trigger transmitted from the printer through the two-way communication (column 55, line 15-column 56, line 43), and the output initiation instruction monitor unit is configured to judge whether the trigger is received (column 56, line 8-48).

Regarding *claim 18*, Akiyama discloses the controller discussed above in claim 14, and further teaches that the status information acquisition unit is configured to analyze the status of the printer based on the acquired status information data (column 56, line 8-column 57, line 48), and the status information acquisition unit is configured to warn a user on the host computer if the printer can perform no printing (see Figs. 46-49).

Regarding *claim 19*, Akiyama discloses the controller discussed above in claim 14, and further teaches that the status information acquisition unit is configured to acquire the communication mode as the status information data when two-way communication is held with the printer (column 55, line 15-column 57, line 48).

Regarding *claim 20*, Akiyama discloses the controller discussed above in claim 14, and further teaches that the printing data generation unit is configured to generate from a default file the form of the printing images to be printed by the printer (column 9, lines 25-51), generate the character string image corresponding to the status based on the status information data (column 9, lines 25-51, column 32, lines 38-63, and column 44, line 55-column 45, line 7), and generate

the printing image by superimposing them together (column 9, lines 25-51, column 32, lines 38-63, and column 44, line 55-column 45, line 7).

Regarding *claim 21*, Akiyama discloses a status information printing method for causing a printer to print status information under the control of a host computer, the printer and the host computer being connected for two-way communication (see Fig. 1, column 8, line 54-column 9, line 51, and column 55, lines 57-61), the method comprising an output initiation instruction monitor step for monitoring the output initiation instruction for the status information that the printer outputs through the two-way communication (see Figs. 43A-43C, step, S1602, and column 55, line 41-column 56, line 43), a status information acquisition step on the host side for acquiring status information data from the printer through the two-way communication (step S1603, column 56, lines 5-43), a printing data generation step for generating printing data to be printed by the printer based on the status information data acquired in the status information acquisition step on the host side when the output initiation instruction is recognized in the output initiation instruction monitor step (steps S1604-S1611, column 56, line 11-column 57, line 51), and a printing data output step for outputting to the printer through the two-way communication the printing data generated in the printing data generation step (steps S1613-S1614, column 57, line 49-column 58, line 8).

Regarding *claim 22*, Akiyama discloses the method discussed above in claim 21, and further teaches that the printing data generated in the printing data generation step is dot image data (column 45, lines 8-42).

Regarding *claim 23*, Akiyama discloses the method discussed above in claim 21, and further teaches that part of the status information data is in the printer whether the output

initiation instruction exists or not (see Figs. 2A and 43A-43C, column 55, line 15-column 56, line 43), and the output initiation instruction monitor step monitors whether the output initiation instruction is contained in the status information data acquired in the status information acquisition step on the host side (steps S101-S102, column 9, lines 55-67, and column 55, line 15-column 56, line 43).

Regarding *claim 24*, Akiyama discloses the method discussed above in claim 21, and further teaches that the output initiation instruction is a trigger transmitted from the printer through the two-way communication (column 55, line 15-column 56, line 43), and the output initiation instruction monitor step judges whether the trigger is received (column 56, line 8-48).

Regarding *claim 25*, Akiyama discloses the method discussed above in claim 21, and further teaches that the status information acquisition step analyzes the status of the printer based on the acquired status information data (column 56, line 8-column 57, line 48), and the status information acquisition step warns a user on the host computer if the printer can perform no printing (see Figs. 46-49).

Regarding *claim 26*, Akiyama discloses the method discussed above in claim 21, and further teaches that the status information acquisition step acquires the communication mode as the status information data when two-way communication is held with the printer (column 55, line 15-column 57, line 48).

Regarding *claim 27*, Akiyama discloses the method discussed above in claim 21, and further teaches that the printing data generation step generates from a default file the form of the printing images to be printed by the printer (column 9, lines 25-51), then generates the character string image corresponding to the status based on the status information data (column 9, lines 25-

51, column 32, lines 38-63, and column 44, line 55-column 45, line 7), and generates the printing image by superimposing them together (column 9, lines 25-51, column 32, lines 38-63, and column 44, line 55-column 45, line 7).

Regarding *claim 28*, Akiyama discloses a status information printing system consisting of a host computer and a printer that are connected for two-way communication via a predetermined data transfer line (see Fig. 1, column 8, line 54-column 9, line 51, and column 55, lines 57-61), the system characterized by the printer configured to output status information data through the two-way communication to the host computer in accordance with a status information output initiation instruction (column 55, line 57-column 56, line 43), and perform predetermined printing based on printing data outputted by the host computer (column 56, line 11-column 57, line 51), and the host computer configured to acquire the status information data outputted from the printer through the two-way communication (step S1603, column 56, lines 5-43), and generate predetermined printing data based on the status information data (steps S1604-S1611, column 56, line 11-column 57, line 51), and output the printing data to the printer (steps S1613-S1614, column 57, line 49-column 58, line 8).

10.     **Claims 8-13** are rejected under 35 U.S.C. 102(e) as being anticipated by Sato *et al.* (U.S. Patent Number 6,667,812, cited in the Office action dated 2/24/05).

Regarding *claim 8*, Sato discloses a printer for holding two-way communication with a host computer and printing status information about the printer (see Figs. 4, 5, 7, and 10, and column 5, lines 5-50), the printer comprising an output initiation instruction unit configured to instruct the output initiation of the status information (column 5, line 59-column 6, line 11), a

status information acquisition unit on the printer's side configured to acquire status information

data on the printer (column 5, line 59-column 6, line 11), a status information output unit

configured to output through the two-way communication the status information data acquired

by the status information acquisition unit on the printer's side (column 5, line 36-column 6, line

39, and column 8, lines 42-65), and causing the host computer to generate printing data for the

printer to print the status information (column 4, lines 13-60, column 7, lines 35-65, and column

8, lines 42-65), and a printing unit configured to receive the printing data from the host computer

through the two-way communication and performing predetermined printing based on the

received data (column 1, line 8-column 2, line 30, and column 4, lines 36-60).

Regarding *claim 9*, Sato discloses the printer discussed above in claim 8, and further

teaches that the printing data received by the printing unit is dot image data (column 3, lines 7-

17).

Regarding *claim 10*, Sato discloses the printer discussed above in claim 8, and further

teaches that the status information acquisition unit includes a status information data storage part

for storing status information data (column 5, line 59-column 6, line 11), and is configured to

write the output initiation instruction as part of the status information data in accordance with the

output initiation instruction of the output initiation instruction unit (column 5, line 59-column 6,

line 11), and the status information output unit is configured to output through the two-way

communication the status information stored in the status information data storage part (column

6, lines 12-39).

Regarding *claim 11*, Sato discloses the printer discussed above in claim 8, and further

teaches that the output initiation instruction unit is configured to output a trigger as the output

initiation instruction through the two-way communication (column 5, lines 59-column 6, lines

39, and column 9, line 20-column 10, line 4), and the status information output unit is configured

to output the status information data acquired by the status information acquisition unit after the

trigger is outputted (column 5, lines 59-column 6, lines 39, and column 9, line 20-column 10,

line 4).

Regarding *claim 12*, Sato discloses the printer discussed above in claim 8, and further

teaches that the output initiation instruction includes a predetermined instruction button, multiple

operation of gives the output initiation instruction (column 6, line 62-column 7, line 30).

Regarding *claim 13*, Sato discloses the printer discussed above in claim 8, and further

teaches that the status information acquisition unit is configured to acquire fixed status

information only when the printer is booted, and the status information acquisition unit is

configured to acquire sequentially updated status information when the status is updated (column

6, lines 12-39, and column 13, lines 21-27).

## *Conclusion*

11.     **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37
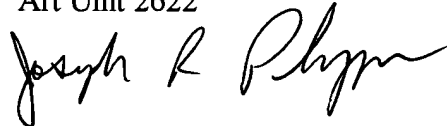
CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12.    Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joe Pokrzywa whose telephone number is (571) 272-7410. The examiner can normally be reached on Monday-Friday, 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joseph R. Pokrzywa
Primary Examiner
Art Unit 2622

jrp